

Trend Study 16A-20-02

Study site name: Triangle Ranch.

Vegetation type: Chained, Seeded P-J.

Compass bearing: frequency baseline 256 degrees magnetic.

Frequency belt placement: line 1 (11 & 95ft), line 2 (34ft) 50' baseline, line 3 (59ft), line 4 (71ft). Rebar: belt 5 on 4ft.

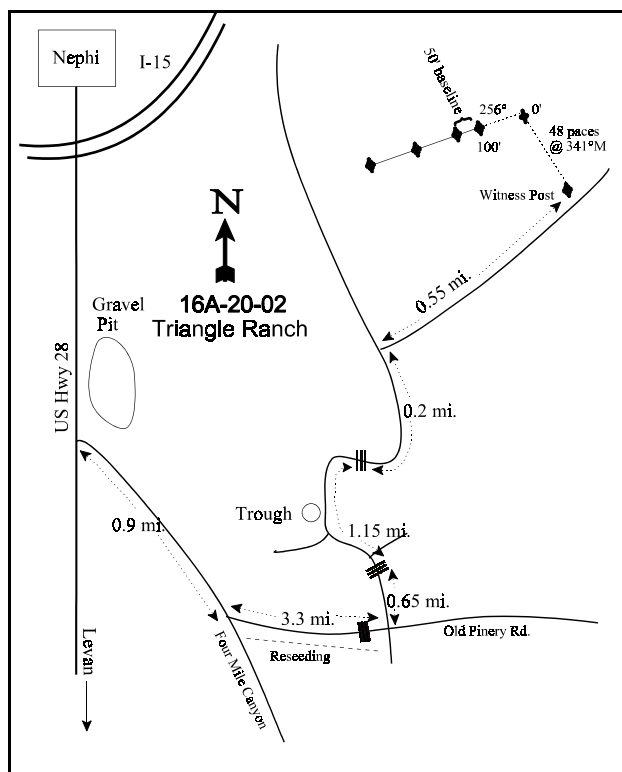
LOCATION DESCRIPTION

Just south of Nephi on Highway 28, turn south past the gravel pit onto a graded road. Go 0.9 miles to a fork. Bear left on the Old Pinery Road. Go 3.0 miles to a cattle guard. Continue 0.3 miles to an intersection. Turn left here and go 0.65 miles to a cattle guard at the top of the hill, then drive through Little Valley 1.1 miles to a gate at the north end of the valley and 0.05 more to a cattle guard. Proceed up the jeep trail 0.2 miles to a fork and bear right. Go 0.55 miles to another fork in a chaining. Take the right fork 0.05 miles to the witness post. From the witness post, go 48 paces at 341 degrees magnetic to the 0-foot baseline stake.



Map Name: Nephi

Township 13S, Range 1E, Section 14



Diagrammatic Sketch

GPS: NAD 27, UTM 12S 4392838 N 432034 E

DISCUSSION

Triangle Ranch - Trend Study No. 16A-20

The Triangle Ranch study was established in 1989 within a chaining on the Division's Triangle Ranch property. The site is in a valley between the low hills south of Nephi. It has a slightly western aspect with a gentle slope of 10% and an elevation of 6,200 feet. The area provides a variety and abundance of browse and herbaceous forage. Gambel oak and juniper are reestablishing themselves after the treatment, but there is an excellent stand of big sagebrush and grass on the study site. In 1989, there was sign of moderate use by deer and elk, mainly in spring and fall as the area often receives significant snow cover. The area had also been grazed by cattle and horses. During the 1997 reading, no deer or elk pellet groups were encountered. Some old cattle pats were found. Data from a pellet group transect read on site in 2002 estimated 36 deer days use/acre (88 ddu/ha). Some old cattle pats were also encountered which appear to be from the summer of 2001. Most of the deer pellet groups appeared to be from winter use but about 20% were from early spring.

The soil is a moderately deep, clay loam with an effective rooting depth estimated at 21 inches. There are few rocks on the surface or in the soil profile. Organic matter is abundant on the surface, but percent organic matter in the top 6 to 8 inches of the soil is fairly low at only 1.9%. Erosion is limited due to the gentle slope and the abundant vegetation and litter cover. The erosion condition classification was determined to be stable in 2002.

Mountain big sagebrush is well established as the most frequent browse species. It provided 12% cover in 1997, increasing to 14% in 2002. Density has remained similar between readings at about 3,000 plants/acre since 1989. Utilization was moderate in 1989 with decadent plants common, making up 60% of the population. Since then, use has been mostly light and the number of decadent plants has declined. Annual leader growth averaged 1.5 inches in 2002. Bitterbrush and white-stemmed rubber rabbitbrush occur in small numbers and provide some additional forage. All bitterbrush plants encountered in 1997 were heavily hedged yet still had good vigor and none were classified as being decadent.

Some oak and juniper trees are reestablishing themselves on the site. Point-centered quarter data estimated 72 juniper/acre in 1989. Forty percent were young trees under 4 feet tall, 35% mature, and the rest were in the 4-8 foot class. Point quarter data from 2002 estimated 110 juniper trees/acre, most in the 10 to 15 foot height class. Average diameter was estimated at 4 inches.

The herbaceous understory is diverse and abundant with grasses producing a total of 30% ground cover in 2002 while forbs provided only 5% cover. The dominant perennial grasses are Kentucky bluegrass, intermediate wheatgrass, sheep fescue, and an increasing population of bulbous bluegrass. Other common grasses include western wheatgrass, smooth brome, orchard grass, and Sandberg bluegrass. Although forbs are diverse, they produce little forage. The only common perennial species is Beckwith milkvetch and false dandelion which accounted for over half of the meager forb cover in 2002.

1989 APPARENT TREND ASSESSMENT

The soil trend appears stable due to the abundant herbaceous ground cover. While the sagebrush population generally appears stable, the data may indicate a declining trend due to high decadence in the population. A rereading will be very interesting on this site. Grasses may still be increasing, and the increase of juniper will be slow but constant.

1997 TREND ASSESSMENT

Trend for soil is stable with similar ground cover characteristics compared to 1989. Erosion is not currently a problem on the site. The browse trend is up slightly for the key browse species, mountain big sagebrush. Density has remained similar, but percent decadence has declined from 60% in 1989 to only 8% currently. It appears that due to the lack of dead plants (180 plants/acre), many of the decadent sagebrush encountered in 1989 have regained there vigor. Utilization continues to be mostly light and recruitment, in spite of the vigorous herbaceous understory, remains more than adequate to maintain the stand. Trend for the herbaceous understory is up due to an increase in the sum of nested frequency for perennial grasses and forbs. Some of the changes in frequency of grasses and forbs may be partly due to the larger sample taken in 1997, but it appears that western wheatgrass has declined significantly in its sum of nested frequency, while Kentucky bluegrass has increased significantly. With more precipitation associated with this higher elevation site, one would expect Kentucky bluegrass to be more competitive than western wheatgrass.

TREND ASSESSMENT

soil - stable (3)

browse - up slightly (4)

herbaceous understory - up (5)

2002 TREND ASSESSMENT

Trend for soil is stable. There was an increase in cover of bare ground and a decline in litter cover due to drought conditions in 2001 and 2002. However, herbaceous cover is abundant and it has increased slightly since 1997. There is no erosion occurring on site due to the abundant protective ground cover. Trend for mountain big sagebrush remains stable with a population of 2,900 plants/acre. Utilization is mostly light and vigor is normal on most plants. The number of decadent plants has increased but recruitment is adequate to maintain the population. One negative aspect is that juniper continues to increase in density and cover. However, it will be many years before it is abundant enough to negatively effect the sagebrush population. Trend for the herbaceous understory is stable. Sum of nested frequency for perennial grasses has declined slightly, while frequency of perennial forbs declined more sharply. Although, forbs provide only 14% of the total herbaceous cover. One negative aspect of the perennial grass component is the significant increase in the low value bulbous bluegrass and a significant decline in Kentucky bluegrass. Bulbous bluegrass provided only 9% of the grass cover in 1997, increasing to 27% in 2002. Cover increased from 2% to 8%. Kentucky bluegrass made up 31% of the grass cover in 1997 with a total cover value of 8%. It declined to a cover value of 4% in 2002 which made up 12% of the grass cover. There may also be some difficulty in identification of western wheatgrass. Data indicates a steady decline in nested frequency since 1989. Much of the intermediate wheatgrass on this chaining is strongly rhizomatous and may have been misidentified as western wheatgrass.

TREND ASSESSMENT

soil - stable (3)

browse - stable (3)

herbaceous understory - stable (3)

HERBACEOUS TRENDS --
Herd unit 16A, Study no: 20

T y p e	Species	Nested Frequency			Quadrat Frequency			Average Cover %	
		'89	'97	'02	'89	'97	'02	'97	'02
G	Agropyron cristatum	_b 40	_a 17	_a 13	24	8	5	.78	.36
G	Agropyron intermedium	62	109	122	30	36	44	4.19	3.47
G	Agropyron smithii	_c 330	_b 140	_a 71	97	50	28	1.06	.81
G	Agropyron spicatum	4	-	-	3	-	-	-	-
G	Bromus inermis	_a 13	_{ab} 37	_b 47	6	12	17	1.17	2.71
G	Bromus tectorum (a)	-	71	51	-	25	20	.39	.12
G	Dactylis glomerata	_a 28	_b 83	_b 60	14	31	26	2.34	3.06
G	Elymus cinereus	-	1	3	-	1	1	.00	.78
G	Elymus salina	-	5	-	-	2	-	.76	-
G	Festuca ovina	_a 30	_b 89	_b 85	12	34	30	4.06	6.15
G	Poa bulbosa	_a -	_b 64	_c 189	-	21	64	2.33	7.94
G	Poa fendleriana	-	1	-	-	1	-	.03	-
G	Poa pratensis	_a 74	_b 182	_a 112	31	57	39	8.13	3.63
G	Poa secunda	82	59	47	30	22	21	1.19	.84
Total for Annual Grasses		0	71	51	0	25	20	0.39	0.12
Total for Perennial Grasses		663	787	749	247	275	275	26.09	29.79
Total for Grasses		663	858	800	247	300	295	26.48	29.92
F	Agoseris glauca	_a 5	_c 90	_b 58	3	37	25	.80	.32
F	Alyssum alyssoides (a)	-	_a 39	_b 85	-	16	31	.08	.25
F	Antennaria rosea	-	6	-	-	2	-	.01	-
F	Arabis spp.	10	10	2	4	4	1	.02	.00
F	Astragalus beckwithii	_a -	_b 60	_b 76	-	25	29	1.83	2.09
F	Aster chilensis	-	-	3	-	-	1	-	.15
F	Astragalus convallarius	_b 25	_a 6	_a 2	13	3	2	.06	.18
F	Balsamorhiza sagittata	-	3	3	-	1	1	.00	.00
F	Calochortus nuttallii	_a -	_b 9	_b 14	-	5	8	.02	.04
F	Cerastium spp.	4	-	-	2	-	-	-	-
F	Cirsium spp.	-	-	-	-	-	-	.03	-
F	Collomia linearis (a)	-	7	9	-	5	4	.05	.02
F	Collinsia parviflora (a)	-	198	165	-	72	55	.63	.64
F	Crepis acuminata	_a 14	_a 12	_b 31	6	6	14	.13	.69
F	Cymopterus spp.	8	4	8	4	2	4	.03	.02
F	Draba spp. (a)	-	3	-	-	1	-	.00	-
F	Epilobium brachycarpum (a)	-	_b 66	_a 20	-	30	10	.17	.05
F	Eriogonum racemosum	5	3	1	3	1	1	.00	.00
F	Eriogonum umbellatum	6	6	6	2	2	2	.06	.03
F	Galium aparine (a)	-	_b 25	_a -	-	9	-	.50	-

Type	Species	Nested Frequency			Quadrat Frequency			Average Cover %	
		'89	'97	'02	'89	'97	'02	'97	'02
F	Lappula occidentalis (a)	-	_b 12	_a -	-	5	-	.02	-
F	Lactuca serriola	5	2	-	2	1	-	.00	-
F	Linum lewisii	_{ab} 13	_b 19	_a 6	5	9	3	.15	.04
F	Microsteris gracilis (a)	-	_a -	_b 21	-	-	9	-	.04
F	Penstemon spp.	-	-	2	-	-	1	-	.00
F	Phlox longifolia	18	21	20	9	8	8	.04	.04
F	Polygonum douglasii (a)	-	8	3	-	3	1	.01	.00
F	Ranunculus testiculatus (a)	-	_b 101	_a 44	-	34	18	.26	.14
F	Sanguisorba minor	1	-	-	1	-	-	-	-
F	Sphaeralcea coccinea	_b 12	_{ab} 9	_a 3	6	4	2	.02	.01
F	Taraxacum officinale	-	1	-	-	1	-	.00	-
F	Tragopogon dubius	_b 45	_b 53	_a 12	24	21	7	.57	.08
F	Unknown forb-annual (a)	-	_b 22	_a -	-	10	-	.05	-
F	Viola spp.	-	_B 5	_a 1	-	4	1	.02	.00
F	Zigadenus paniculatus	1	6	7	1	3	5	.04	.07
Total for Annual Forbs		0	481	347	0	185	128	1.81	1.16
Total for Perennial Forbs		172	325	255	85	139	115	3.89	3.81
Total for Forbs		172	806	602	85	324	243	5.71	4.97

Values with different subscript letters are significantly different at alpha = 0.10

BROWSE TRENDS --

Herd unit 16A, Study no: 20

Type	Species	Strip Frequency		Average Cover %	
		'97	'02	'97	'02
B	Artemisia tridentata vaseyana	62	64	12.08	13.80
B	Chrysothamnus nauseosus albicaulis	6	6	.06	.68
B	Gutierrezia sarothrae	6	28	.02	.26
B	Juniperus osteosperma	2	8	1.14	3.04
B	Purshia tridentata	2	1	.15	-
B	Quercus gambelii	0	2	.63	.63
Total for Browse		78	109	14.09	18.43

CANOPY COVER --

Herd unit 16A, Study no: 20

Species	Percent Cover		Trees per Acre		Average diameter (in)	
	'97	'02	'97	'02	'97	'02
Juniperus osteosperma	-	3	97	110	4.2	4.0
Quercus gambelii	-	2	-	-	-	-

Key Browse Annual Leader Growth
Herd unit 16A , Study no: 20

Species	Average leader growth (in) '02
Artemisia tridentata vaseyana	1.5

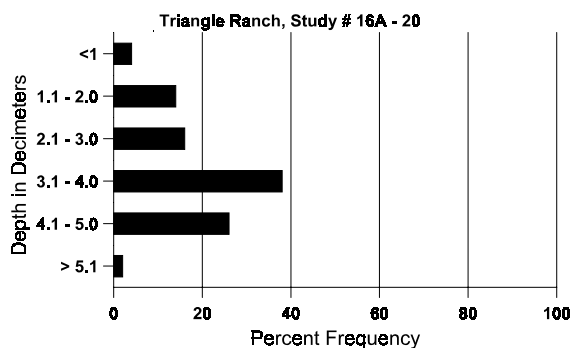
BASIC COVER --
Herd unit 16A, Study no: 20

Cover Type	Nested Frequency		Average Cover %		
	'97	'02	'89	'97	'02
Vegetation	385	363	6.50	48.11	55.36
Rock	42	58	1.00	.22	.22
Pavement	154	119	.50	1.14	1.77
Litter	400	367	79.75	51.00	42.92
Cryptogams	25	4	1.25	.07	.15
Bare Ground	235	233	11.00	12.95	19.10

SOIL ANALYSIS DATA --
Herd Unit 16A, Study no: 20, Triangle Ranch

Effective rooting depth (in)	Temp °F (depth)	pH	%sand	%silt	%clay	%OM	PPM P	PPM K	dS/m
21.3	43.8 (17.7)	6.2	42.0	31.4	26.6	1.9	17.7	185.6	.4

Stoniness Index



PELLET GROUP FREQUENCY --
Herd unit 16A, Study no: 20

Type	Quadrat Frequency		Pellet Transect	
	'97	'02	Pellet Groups per Acre '02	Days Use per Acre (ha) '02
Rabbit	2	8	-	-
Deer	-	9	461	35 (88)
Cattle	7	5	52	4 (11)

BROWSE CHARACTERISTICS --

Herd unit 16A, Study no: 20

Field unit FOR, Study No. 20																			
A G R E	Y R E	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.			Total
		1	2	3	4	5	6	7	8	9	1	2	3	4					
Amelanchier alnifolia																			
M	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0	
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0	32	30	0	
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0	44	42	0	
% Plants Showing		<u>Moderate Use</u>				<u>Heavy Use</u>				<u>Poor Vigor</u>				<u>%Change</u>					
'89		00%				00%				00%									
'97		00%				00%				00%									
'02		00%				00%				00%									
Total Plants/Acre (excluding Dead & Seedlings)															'89	0	Dec:	-	
															'97	0		-	
															'02	0		-	
Artemisia tridentata vaseyana																			
S	89	1	-	-	-	-	-	-	-	-	1	-	-	-	66			1	
	97	7	-	-	-	-	-	-	-	-	7	-	-	-	140			7	
	02	1	-	-	-	-	-	-	-	-	1	-	-	-	20			1	
Y	89	5	1	-	-	-	-	-	-	-	6	-	-	-	400			6	
	97	43	1	-	-	-	-	-	-	-	44	-	-	-	880			44	
	02	13	1	-	-	-	-	-	-	-	14	-	-	-	280			14	
M	89	5	9	-	-	-	-	-	-	-	13	1	-	-	933	22	24	14	
	97	75	23	5	-	-	-	-	-	-	103	-	-	-	2060	26	38	103	
	02	62	27	-	-	-	-	-	-	-	89	-	-	-	1780	25	37	89	
D	89	13	17	-	-	-	-	-	-	-	29	1	-	-	2000			30	
	97	11	1	-	-	-	-	-	-	-	4	-	1	7	240			12	
	02	32	9	-	-	1	-	-	-	-	26	-	1	15	840			42	
X	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	180			9	
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	180			9	
% Plants Showing		<u>Moderate Use</u>				<u>Heavy Use</u>				<u>Poor Vigor</u>				<u>%Change</u>					
'89		54%				00%				00%				- 5%					
'97		16%				03%				05%				- 9%					
'02		26%				00%				11%									
Total Plants/Acre (excluding Dead & Seedlings)															'89	3333	Dec:	60%	
															'97	3180		8%	
															'02	2900		29%	

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Chrysothamnus nauseosus albicaulis																		
Y	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	97	2	-	-	-	-	-	-	-	-	-	2	-	-	40		2	
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
M	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	97	4	-	-	-	-	-	-	-	-	-	4	-	-	80	34	4	
	02	2	1	-	-	-	-	-	-	-	-	3	-	-	60	29	3	
D	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	97	1	-	-	-	-	-	-	-	-	-	-	-	1	20		1	
	02	-	4	-	-	-	-	-	-	-	-	4	-	-	80		4	
X	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	20		1	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'89		00%			00%			00%										
'97		00%			00%			14%			+ 0%							
'02		71%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'89	0	Dec:	0%			
												'97	140		14%			
												'02	140		57%			
Chrysothamnus viscidiflorus viscidiflorus																		
M	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0	11	0	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'89		00%			00%			00%										
'97		00%			00%			00%										
'02		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'89	0	Dec:	-			
												'97	0		-			
												'02	0		-			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Gutierrezia sarothrae																		
S	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	97	1	-	-	-	-	-	-	-	-	-	-	-	-	20		1	
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	89	8	-	-	-	-	-	-	-	-	8	-	-	-	533		8	
	97	5	-	-	-	-	-	-	-	-	5	-	-	-	100		5	
	02	14	-	-	-	-	-	-	-	-	14	-	-	-	280		14	
M	89	36	-	-	-	-	-	-	-	-	36	-	-	-	2400	7	8	
	97	7	-	-	-	-	-	-	-	-	7	-	-	-	140	5	3	
	02	47	-	-	1	-	-	-	-	-	48	-	-	-	960	4	7	
D	89	4	-	-	-	-	-	-	-	-	1	-	2	1	266		4	
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	02	4	-	-	-	-	-	-	-	-	1	-	-	3	80		4	
X	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	40		2	
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'89		00%			00%			06%			-92%							
'97		00%			00%			00%			+82%							
'02		00%			00%			05%										
Total Plants/Acre (excluding Dead & Seedlings)												'89	3199	Dec:	8%			
												'97	240		0%			
												'02	1320		6%			
Juniperus osteosperma																		
Y	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	97	2	-	-	-	-	-	-	-	-	2	-	-	-	40		2	
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
M	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
	02	8	-	-	-	-	-	-	-	-	8	-	-	-	160	71	43	
X	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	80		4	
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'89		00%			00%			00%										
'97		00%			00%			00%			+75%							
'02		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'89	0	Dec:	-			
												'97	40		-			
												'02	160		-			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Peraphyllum ramosissimum																		
M	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0	51	64	0
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'89		00%			00%			00%										
'97		00%			00%			00%										
'02		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'89	0	Dec:	-			
												'97	0		-			
												'02	0		-			
Purshia tridentata																		
M	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	97	-	-	2	-	-	-	-	-	-	2	-	-	-	40	23	32	2
	02	-	-	-	-	-	-	-	-	1	1	-	-	-	20	19	51	1
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'89		00%			00%			00%										
'97		00%			100%			00%			-50%							
'02		00%			100%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'89	0	Dec:	-			
												'97	40		-			
												'02	20		-			
Quercus gambelii																		
S	89	1	-	-	-	-	-	-	-	-	1	-	-	-	66			1
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
Y	89	3	-	-	-	-	-	-	-	-	3	-	-	-	200			3
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
M	89	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	02	7	8	-	-	-	-	-	-	-	15	-	-	-	300	64	36	15
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'89		00%			00%			00%										
'97		00%			00%			00%										
'02		53%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'89	200	Dec:	-			
												'97	0		-			
												'02	300		-			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Symphoricarpos oreophilus																		
M	89	-	-	1	-	-	-	-	-	-	1	-	-	-	66	40	34	1
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
D	89	-	-	1	-	-	-	-	-	-	1	-	-	-	66			1
	97	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	02	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'89		00%			100%			00%										
'97		00%			00%			00%										
'02		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)													'89	132	Dec:	50%		
													'97	0		0%		
													'02	0		0%		